







# PERFORMANCE FROM START TO FINISH

Ensuring the safety of the entire pipeline system requires the valves for oil and gas applications to be able to meet the most challenging demands.

The design is optimised for each specific field of application and complies with the latest standards and regulations. BÖHMER-Ball Valves are a guarantee for long lasting reliability.

Renowned oil and gas companies trust in our quality.

# EXPERIENCE, EXPERTISE, PERFORMANCE. WE ARE BÖHMER!

We have been a reliable ball valve manufacturer since 1956. More than 300 highly qualified employees and modern machinery are the components of our success.





Today we are proud to have facilities located on  $23,000~\text{m}^2$  of production and administration floor-space in our main factory and  $13,500~\text{m}^2$  in our branch factory in Hattingen.

Furthermore we are present outside of Europe with two production facilities. In China we produce split body ball valves for the local market. Our plant in Kazakhstan is delivering district heating ball valves to regional customers.

Our large warehousing capacity enables us to meet even short-term deadlines. On-time deliveries are standard for us.

Our regular customers are demanding and therefore appreciate our first-class service. They have relied on the quality and reliability of BÖHMER ball valves for decades. We are proud to be recognized as one of the leading valve manufacturers.

# THE BÖHMER PRODUCT LINE

Our ball valves set standards because our products are designed for the most demanding conditions. The various applications for which our ball valves were designed require maximum durability and performance.

Generally our ball valves can be used wherever gases, liquids and solids are transported. It goes without saying that our ball valves fulfill all requirements for certification and procedure approvals.

We can transport all media without difficulty up to the nominal size DN1400 / 56", even with pressures of up to 500 bar.

The standards that our ball valves now fulfill are the highest on the market. But we go a step further. Our team of highly qualified engineers and designers takes special care to further develop our ball valves with maximum quality of design and material as well as cost-effectiveness.









# **Certifications**

**DIN EN ISO 9001** API 6D/API 6DSS **DIN-DVGW** EN 13774 EAC EN 14141 **TA-Luft ATEX 94/9/EG** BS 5351 Fire Safe acc. to BS6755/API6FA PED 2014/68/EU (structural component approvals) Type approvals Safety Shutoff Units (SAE) (VdTÜV) acc. to EN 14382

and others











# PRECISELY DESIGNED AND PROVEN IN THE FIELD

Böhmer fully welded ball valves fullfil the requirements of the most common national and international standards.

#### **BASIC DESIGN FEATURES**

#### **Seat Seal System**

The Böhmer ball valves provide spring supported seats as a standard. The seats are pressed against the ball surface by the spring elements and ensure a tight shut-off at low line pressure. In addition the sealing effect is assisted by the pressure in line. So the total sealing force is the sum of the spring force and the force resulting from the pressure which increases proportionally with the line pressure. Depending on applications and customer requirements the below mentioned sealing systems can be delivered:

- soft seated
- primary metal seated / secondary soft seated
- metal to metal seated

#### **Stem Sealing**

The sealing of the stem to the atmosphere is achieved

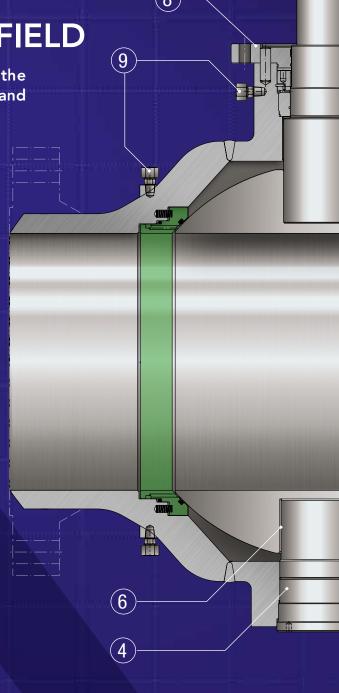
by three independent sealing systems. The stem sealing designensures the anti-blow-outfunction, too. Therefore, certain stem sealings are easily replaceable under full line pressure in open or closed position.

#### **Trunnion Mounted Ball**

The standard design of Böhmer ball valves provides a trunnion mounted ball for the nominal sizes 3 inch and higher. The maintenance-free bearings for stem and trunnion are self-lubricating, thus ensuring a lower torque especially for high pressure ratings.

#### **Anti-Static Device**

The ball valve design includes an electric conductive connection between the internal parts of the ball valve and the body, providing the anti-static function.

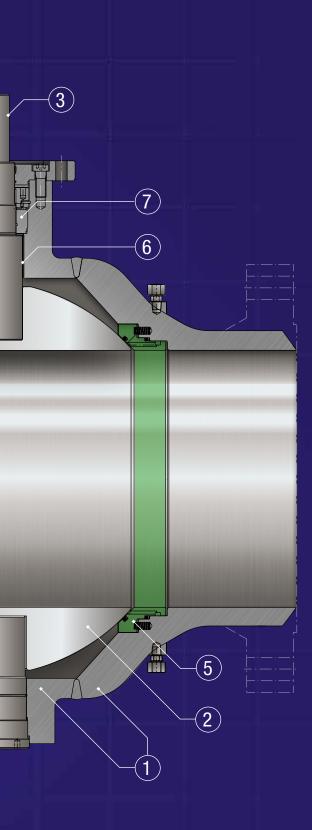


#### **Fire Protection**

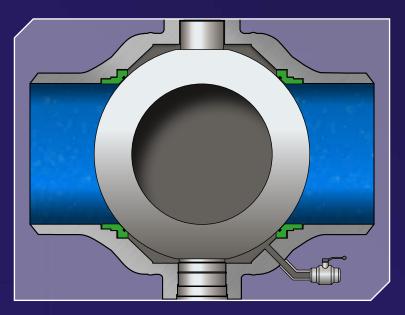
The design ensures the fire safe requirements in accordancewith the international standards as API 6FA, API 607, BS 6755 P 2 and ISO 10497.

#### **Emergency Sealing**

As an option, Böhmer ball valves can be delivered with an additional emergency sealant injection for the seat-rings and stem sealing.

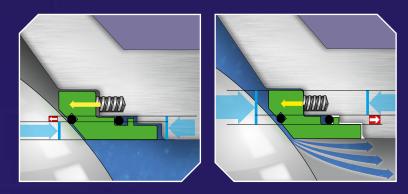


- ① Body
- ② Ball
- ③ Stem
- 4 Trunnion
- ⑤ Seat-rings
- 6 Self lubricating bearings
- Anti blow-out device of the stem
- 8 Top mounting flange for gearboxes or actuators
- Emergency sealant injection
   as an option



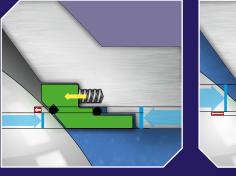
#### Double Block and Bleed

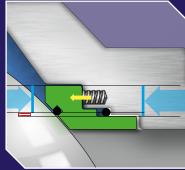
The cavity can be relieved via vent or drain connections at the cavity. The upstream and downstream seat rings ensure the tight shut off to the cavity in closed position (optional in open position as well). This enables the verification of the tightness of the ball valve under full working pressure.



#### Single-Piston-Effect (Self-relieving Seat Design)

This seat system is designed to automatically vent any excessive build-up pressure in the body cavity. The floating seat design allows for relieving the overpressure into the pipeline.





#### Double-Piston-Effect (Bi-directional Seating System)

With this design the seat rings tighten independently of the actual pressure relations. A redundant sealing system is created. Self relieving of the cavity does not happen in closed position (optional in open position as well).

### DN 25 - 400, ANSI Class 150 | PN 16



#### **Standard Materials:**

Body: TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A106/P235 GH-TC1; P250 GH

**Ball:** ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

DIN models up to DN 100: stainless steel

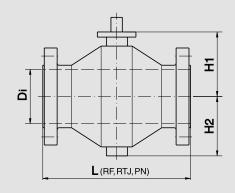
Seat Rings: ASTM A350 LF2; ENP or hard chrome;

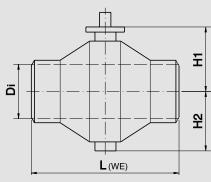
stainless steel on request

DIN models up to DN 200: PTFE

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	Nom. size Diamet		Fac	e to face	dimensi	ons			V	/eight
D	N	Di*	L(RF)	L(RTJ)	L(PN*)	L(WE)	H1*	H2*	Flange*	Weld Ends*
mm	inch	mm	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	127	-	-	216	35	27	4.5	2
50	2	51	178	191	150	241	63	45	12	6
80	3	78	203	216	180	283	100	70	28	20
100	4	102	229	241	190	305	113	86	45	32
150	6	152	394	406	350	400	166	157	85	59
200	8	203	457	470	400	460	201	192	130	90
250	10	254	533	546	650	600	283	249	295	265
300	12	305	610	622	750	700	325	313	505	450
350	14	336	686	699	850	800	353	340	680	610
400	16	387	762	775	950	900	435	406	850	750

<sup>\*</sup> DIN constructions: possibly lower values

### DN 450 - 1400, ANSI Class 150 | PN 16\*



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

P250 GH

Ball: ASTM A350 LF2; ENP or hard chrome;

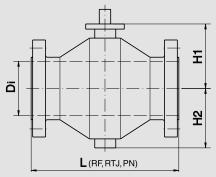
stainless steel on request

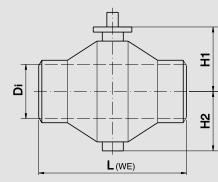
**Seat Rings:** ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Fac	e to face	dimensi	ons			W	/eight
D	N	Di	L(RF)	L(RTJ)	L(PN*)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	mm	kg	kg
450	18	438	864	876	1050	1000	470	450	1180	1050
500	20	489	914	927	1150	1090	512	488	1660	1400
550	22	540	1016	1028,7	-	1130	649	551	2100	1800
600	24	591	1067	1080	1350	1150	688	594	2500	2300
700	28	686	1245	-	1550	1295	742	661	3100	2800
750	30	736	1295	-	-	1346	785	711	3680	3250
800	32	781	1372	-	-	1397	852	774	4830	4400
900	36	876	1524	-	-	1499	912	830	6650	6050
1000	40	978	1948	-	-	2010	1110	978	8900	8250
1050	42	1020	2015	-	-	2085	1163	1026	9900	9150
1200	48	1166	2145	-	-	2210	1322	1192	16000	14900
1400	56	1360	2360	-	-	2445	1530	1348	20500	19300

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

## DN 25 - 400, ANSI Class 300 | PN 25/40



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A106/P235 GH-TC1; P250 GH

Ball: ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

DIN models up to DN 100: stainless steel

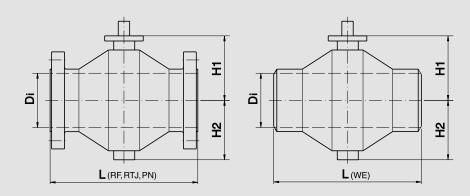
Seat Rings: ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

DIN models up to DN 100: PTFE

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR





For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Fac	e to face	dimensi	ons			W	/eight
D	N	Di*	L(RF)	L(RTJ)	L(PN*)	L(WE)	H1*	H2*	Flange*	Weld Ends*
mm	inch	mm	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	140	-	-	216	35	27	4,5	2
50	2	51	216	232	150	241	63	45	12	6
80	3	78	283	298	180	283	100	95	28	20
100	4	102	305	321	190	305	113	108	45	32
150	6	152	403	419	350	400	198	165	89	59
200	8	203	502	518	400	460	233	201	135	90
250	10	254	568	584	650	600	283	249	310	265
300	12	305	648	664	750	700	325	313	520	450
350	14	336	762	778	850	800	353	340	710	610
400	16	387	838	854	950	900	435	406	890	750

<sup>\*</sup> DIN constructions: possibly lower values

### DN 450 - 1400, ANSI Class 300 | PN 25/40\*



#### Standard Materials:

Body: TSTE 355N/P355 NL1; ASTM A350 LF2

Ball: ASTM A350 LF2; ASTM A105; ASTM A182;

ASTM A694; ENP or hard chrome;

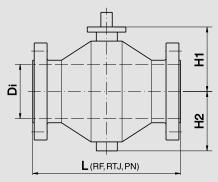
stainless steel on request

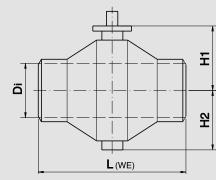
**Seat Rings:** ASTM A350 LF2; ASTM A105;

ENP or hard chrome; stainless steel on request

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Fac	e to face	dimensi	ons			W	eight eight
D	N	Di	L(RF)	L(RTJ)	L(PN*)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	mm	kg	kg
450	18	438	914	930	1050	1000	470	450	1210	1050
500	20	489	991	1010	1150	1090	512	488	1710	1450
550	22	540	1092	1114	-	1130	649	551	2100	1850
600	24	591	1143	1165	1350	1150	688	594	2580	2300
700	28	686	1346	1372	1550	1295	742	661	3190	2840
750	30	736	1397	1422	-	1346	785	711	3800	3350
800	32	781	1524	1553	-	1397	852	774	4950	4500
900	36	876	1727	1756	-	1499	912	830	6900	6200
1000	40	978	2048	-	-	2010	1110	978	9200	8400
1050	42	1020	2112	-	-	2085	1163	1026	10700	9800
1200	48	1166	2257	-	-	2210	1322	1192	16600	15500
1400	56	1360	2470	-	-	2445	1530	1348	21300	19700

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

### DN 25 - 400, ANSI Class 600 | PN 100\*



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2

Ball: ASTM A350 LF2; ASTM A694;

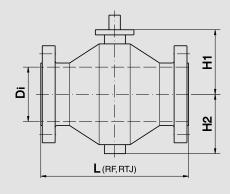
ENP or hard chrome; stainless steel on request

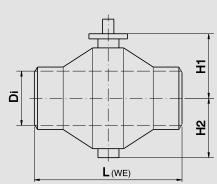
**Seat Rings:** ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Face to	face dim	ensions			W	/eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	216	216	216	55	29	6	3
50	2	51	292	295	292	78	61	17	10
80	3	78	356	359	356	160	116	41	32
100	4	102	432	435	432	192	135	72	56
150	6	152	559	562	559	228	178	157	115
200	8	203	660	663	660	295	224	300	225
250	10	254	787	791	787	343	275	455	365
300	12	305	838	841	838	403	320	690	590
350	14	336	889	892	889	451	363	980	830
400	16	387	991	994	991	492,5	400	1310	1080

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

### DN 450 - 1400, ANSI Class 600 | PN 100\*



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTMA 350 LF2;

ASTM A694

Ball: ASTM A350 LF2; ASTM A694;

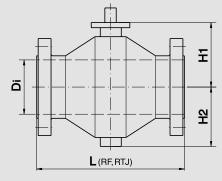
ENP or hard chrome; stainless steel on request

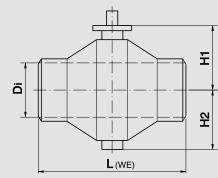
Seat Rings: ASTM A350 LF2; ENP or hard chrome;

stainless steel on request

O-Rings: FPM; EPDM; NBR; HNBR

Seat Insert: FPM; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Face to	face dim	ensions			W	/eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
450	18	438	1092	1095	1030	548	458	1770	1490
500	20	489	1194	1200	1090	603,5	504	2210	1830
550	22	540	1295	1305	1130	649	551	2720	2250
600	24	591	1397	1407	1245	688	594	3400	2950
700	28	686	1549	1562	1295	742	661	4580	3850
750	30	736	1651	1664	1346	785	711	5750	4890
800	32	781	1778	1794	1397	852	774	7000	6000
900	36	876	2083	2099	1499	912	830	8800	7500
1000	40	978	2165	2194	2010	1110	978	10600	9300
1050	42	1020	2240	2269	2085	1163	1026	11700	10400
1200	48	1166	2385	2414	2210	1322	1192	18900	16800
1400	56	1360	2710	2739	2445	1530	1348	26800	23800

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

### DN 25 - 400, ANSI Class 900 | PN 160\*



#### Standard Materials:

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A694

Ball: ASTM A350 LF2; ASTM A182; ASTM A694;

ENP or hard chrome; stainless steel on re-

quest

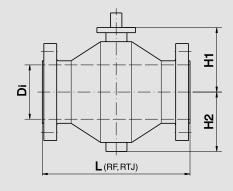
Seat Rings: ASTM A350 LF2; ASTM A694; ASTM A182;

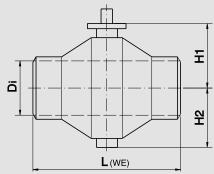
ENP or hard chrome; stainless steel on re-

quest

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Face to	face dim	ensions			V	/eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	216	216	216	55	29	7	3
50	2	51	368	372	292	78	61	23	10
80	3	78	381	384	356	160	116	49	32
100	4	102	457	460	432	192	135	83	56
150	6	152	610	613	559	228	178	185	115
200	8	203	737	740	660	295	224	395	230
250	10	254	838	841	787	343	275	620	405
300	12	305	965	968	838	413	330	920	670
350	14	324	1029	1038	889	461	373	1280	920
400	16	375	1130	1140	991	505	412,5	1620	1210

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

### DN 450 - 1200, ANSI Class 900 | PN 160\*



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A694

Ball: ASTM A350 LF2; ASTM A182; ASTM A694;

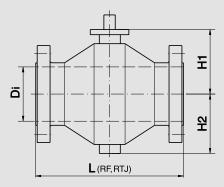
ENP or hard chrome; stainless steel on request

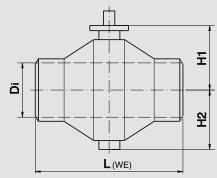
Seat Rings: ASTM A350 LF2; ASTM A694; ASTM A182;

ENP or hard chrome; stainless steel on request

O-Rings: FPM; EPDM; NBR; HNBR

Seat Insert: FPM; HNBR







For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Face to	face dim	ensions			W	eight eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
450	18	425	1219	1232	1030	563	471	2100	1650
500	20	473	1321	1334	1190	621,5	519	2680	2040
550	22	524	1422	1435	1130	671	566	3420	2750
600	24	572	1549	1568	1295	708	615	4290	3320
700	28	667	1549	1562	1359	772	685	6100	4950
750	30	714	1880	1902	1422	820	740	7800	6500
800	32	762	1778	1794	1486	887	805	9750	7800
900	36	857	2286	2315	1625	945	865	13900	10400
1000	40	956	2225	2254	2010	1120	995	17800	14700
1050	42	1006	2285	2314	2085	1187	1055	19600	16300
1200	48	1149	2460	2489	2210	1380	1215	28500	24500

<sup>\*</sup> DIN face-to-face dimensions are deliverable as well.

### DN 25 - 900, ANSI Class 1500 / PN 250



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A694

Ball: ASTM A350 LF2; ASTM A182; ASTM A694;

ENP or hard chrome; stainless steel on re-

quest

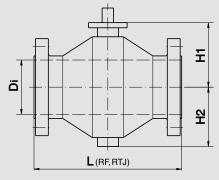
Seat Rings: ASTM A350 LF2; ASTM A694; ASTM A182;

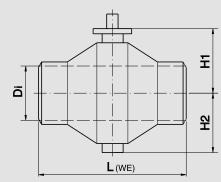
ENP or hard chrome; stainless steel on re-

quest

O-Rings: FPM; EPDM; NBR; HNBR

**Seat Insert:** FPM; PTFE; PTFE-filled; HNBR





Nom	. size	Diameter	Face to	face dim	ensions			V	/eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	254	257	254	60	35	21	13
50	2	51	368	372	368	85	70	35	18
80	3	78	470	473	410	175	131	73	48
100	4	102	546	549	470	212	155	126	88
150	6	146	705	711	580	253	203	255	165
200	8	194	832	841	710	330	254	625	410
250	10	241	991	1000	820	388	310	845	650
300	12	289	1130	1146	940	463	382	1430	1120
350	14	318	1257	1276	1075	527	433	1900	1430
400	16	362	1384	1407	1200	575	482,5	2400	1750
450	18	406	1537	1559	1254	533	474	3100	2100
500	20	454	1664	1686	1295	743	612	3900	2850
600	24	546	1950	1972	1390	849	753	5600	4500
700	28	641	-	1990	1497	1001	859	7900	6600
750	30	686	-	-	1575	1078	910	10000	8500
800	32	730	-	-	1610	1120	965	12800	11000
900	36	819	-	-	1770	1235	1080	17400	15000



For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

### DN 25 - 300, ANSI Class 2500 / PN 420



#### **Standard Materials:**

**Body:** TSTE 355N/P355 NL1; ASTM A350 LF2;

ASTM A694

Ball: ASTM A350 LF2; ASTM A182; ASTM A694;

ENP or hard chrome; stainless steel on re-

quest

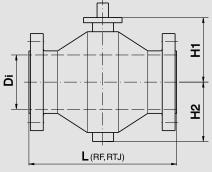
Seat Rings: ASTM A350 LF2; ASTM A694; ASTM A182;

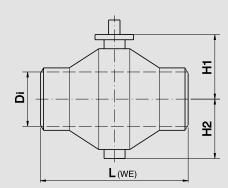
ENP or hard chrome; stainless steel on re-

quest

O-Rings: FPM; EPDM; NBR; HNBR

Seat Insert: FPM; HNBR





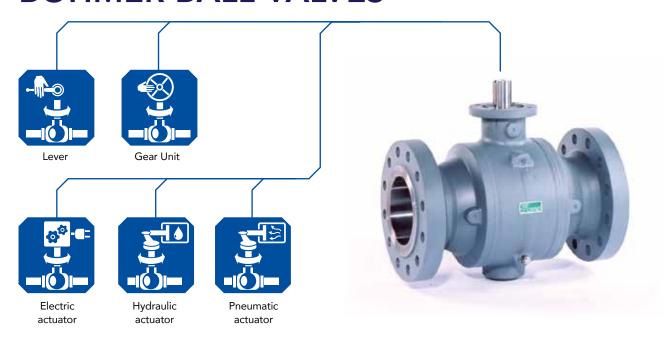


For deviating operating conditions please send us a written request stating the fluids, as well as the pressure and temperature range.

The materials which are mentioned in the list are the Böhmer standard materials. They comply with the most common national and international standards.

Nom	. size	Diameter	Face to	face dim	ensions			W	/eight
D	N	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	Flange	Weld Ends
mm	inch	mm	mm	mm	mm	mm	mm	kg	kg
25	1	25	254	257	254			37	20
50	2	42	451	454	368	145	105	82	36
80	3	62	578	584	410	195	155	175	80
100	4	87	673	683	490	232	180	340	185
150	6	131	914	927	610	285	234	770	380
200	8	179	1022	1038	870	363	290	1250	720
250	10	223	1270	1292	995	415	345	2000	1050
300	12	265	1422	1445	1145	498	415	2700	1400

# ACTUATORS FOR BÖHMER BALL VALVES



#### Ball valves with gear units

An economical solution for actuating large ball valves.

# Pneumatic, hydraulic and electric ball valve actuators

BÖHMER ball valves can be combined with actuators

made by all established actuator manufacturers. We look forward to receiving your technical inquiries.

The actuating torque is defined by the range of application, the operating conditions and the design of the ball valve. Our technical engineers will be at your service in order to select the best suitable actuator for your ball valve.



# **OPTIONAL EQUIPMENT**

**Emergency sealing injection** 

**Stem extension** 

Extended lines for drain, vent and emergency sealing injection

Bypass directly at the valve

**Locking device** 

**Underground installation** 

Other design features on request



# BÖHMER BALL VALVES IN OPERATION

# We keep in step with time!

Thanks to our comprehensive product line, we are already able to fulfill almost every customer demand.





# **BÖHMER**OUR EXPERIENCE – YOUR SAFETY





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